

WHAT IS CLAIMED IS:

- 1 1. A method for treating a small-tank toilet system comprising the steps of:
- 2 (a) selecting a bacteria and a surfactant;
- 3 (b) charging the small-tank toilet system with flushing fluid;
- 4 (c) combining the bacteria, the surfactant, and the flushing fluid.

- 1 2. The method of claim 1 wherein the bacteria is selected from the group consisting
- 2 of *Bacillus licheniformis*, *Pseudomonas fluorescens*, *Alcaligenes latus*, *Bacillus subtilis*, and
- 3 *Pseudomonas putida*.

- 1 3. The method of claim 2 wherein the bacteria is combined with the surfactant in a
- 2 weight ratio from about 10% to about 50%.

- 1 4. The method of claim 2 wherein the bacteria is combined with the surfactant in a
- 2 weight ratio from about 10% to about 30%.

- 1 5. The method of claim 2 wherein small-tank toilet system is utilized in a group
- 2 consisting of airplanes, busses, campers, trains, boats, and free standing portable toilet.

- 1 6. The method of claim 1 further comprising the step of combining a coloring agent
- 2 with the bacteria, the surfactant, and the flushing fluid.

- 1 7. The method of claim 1 further comprising the step of combining a deodorizer with
- 2 the bacteria, the surfactant, and the flushing fluid.

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2 ~~B4~~ 8. The method of claim 1 further comprising the step of mixing the bacteria and
3 surfactant into a composition before combining it with the flushing fluid, wherein said
4 composition is a form selected from the group consisting of a liquid form, a powder form,
and a solid block-tablet form.

1 9. The method of claim 8 further comprising the steps of:
2 (a) mixing a filler in the composition; and
3 (b) mixing a food source in the composition.

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2 ~~B4~~ 10. The method of claim 9 further comprising the steps of:
3 (a) the filler is selected from the group consisting of calcium carbonate and
4 sodium sulfate;
5 (b) the food source is dried brewers yeast;
6 (c) mixing a deodorant in the composition; and
7 (d) mixing a coloring agent in the composition.

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2 ~~B4~~ 11. The method of claim 9 further comprising the steps of:
3 (a) the filler is mixed in the composition at least about 50% by weight;
4 (b) the food source is mixed in a range from about 0.1% to about 5% by weight;
5 (c) the deodorant is mixed in the composition in a range from about 0.05% to
6 about 2% by weight; and
7 (d) the bacteria and the surfactant are mixed in the composition in the range from
about 5% to about 50% by weight.

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12. The method of claim 9 further comprising the steps of:
- (a) the filler is mixed in the composition with the range from about 50% to about 80% by weight;
 - (b) the food source is dried brewers yeast in the composition in the range from about 1% to about 2% by weight;
 - (c) the deodorant is mixed in the composition in a range from about 0.2% to about 1% by weight; and
 - (d) the bacteria and the surfactant are mixed in the composition in the range of about 15% to about 20% by weight.

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13. The method of claim 12 further comprising the step of combining a coloring agent with the bacteria and the surfactant.

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Cont. 9
14. The method of claim 8 further comprising the steps of:
- (a) mixing water in the composition;
 - (b) mixing an alcohol in the composition; and
 - (c) wherein the form of the composition is the liquid form.

1 ~~15~~ The method of claim 14 further comprising the steps of:

2 (a) the water is mixed in the composition at least about 50% by weight;

3 (b) the alcohol is mixed with a monoethanolamine, the bacteria, and the
4 surfactant in the range from about 1.5% to about 60% by weight of the alcohol, the
5 monoethanolamine, bacteria, and surfactant;

6 (c) the monoethanolamine is mixed with the alcohol, the bacteria, and the
7 surfactant in the range from about 1.5% to about 60% by weight of the alcohol, the
8 monoethanolamine, bacteria, and surfactant; and

9 (d) the bacteria and the surfactant are mixed with the alcohol and
10 monoethanolamine in the range from about 20% to about 97% by weight of the alcohol, the
11 monoethanolamine, bacteria, and surfactant.

12 16. The method of claim 15 further comprising the steps of:

13 (a) the alcohol is mixed with a monoethanolamine, the bacteria, and the
14 surfactant in the range from about 5% to about 20% by weight of the alcohol, the
15 monoethanolamine, bacteria, and surfactant;

16 (b) the monoethanolamine is mixed with the alcohol, the bacteria, and the
17 surfactant in the range from about 5% to about 15% by weight of the alcohol, the
18 monoethanolamine, bacteria, and surfactant; and

19 (c) the bacteria and the surfactant are mixed with the alcohol and
20 monoethanolamine in the range from about 65% to about 90% by weight of the alcohol, the
21 monoethanolamine, bacteria, and surfactant.

1 17. The method of claim 9 further comprising the step of combining a binding agent with
2 the bacteria and the surfactant.

18. A method for treating a small-tank toilet system comprising the steps of:
- (a) removing a first flushing fluid from a small-tank toilet system;
 - (b) charging the small-tank toilet system with a second flushing fluid;
 - (c) selecting a bacteria, which bacteria is selected from the group consisting of *Bacillus licheniformis*, *Pseudomonas fluorescens*, *Alcaligenes latus*, *Bacillus subtilis*, and *Pseudomonas putida*;
 - (d) selecting a surfactant for combining with the bacteria;
 - (e) charging the small-tank toilet system with the bacteria and the surfactant;
 - (f) repeating steps (a)-(f).

19. The method of claim 18 further comprising the steps of:
- (a) combining a filler, a food source, with the bacteria and the surfactant, wherein
 - (i) the filler is calcium carbonate and is combined with the food source, the methyl salicylate, the bacteria, and the surfactant by at least about 50% by weight;
 - (ii) the food source is dried brewers and is combined with the filler, the methyl salicylate, the bacteria, and the surfactant in a range from about 0.1% to about 5% by weight; and
 - (iii) the bacteria and the surfactant with the filler, the food source, and the methyl salicylate in a range from about 5% to about 50% by weight.

1 20. The method of claim 18 further comprising the steps of:

2 (a) combining water, alcohol, and monoethanolamine, with the bacteria and the
3 surfactant, wherein

4 (i) water is combined with the alcohol, the monoethanolamine, the
5 bacteria, and the surfactant, by at least about 50% by weight;

6 (ii) the alcohol is combined with the monoethanolamine, the bacteria, and
7 the surfactant in the range from about 1.5% to about 60% by weight of the alcohol, the
8 monoethanolamine, bacteria, and surfactant;

9 (iii) the monoethanolamine is combined with the alcohol, the bacteria, and
10 the surfactant in the range from about 1.5% to about 60% by weight of the alcohol, the
11 monoethanolamine, bacteria, and surfactant; and

12 (iv) the bacteria and the surfactant are combined with the alcohol and
13 monoethanolamine in the range from about 20% to about 97% by weight of the alcohol, the
14 monoethanolamine, bacteria, and surfactant.

- 1 21. An apparatus for treating human waste products comprising:
2 (a) a small-tank toilet system;
3 (b) a flushing fluid charged into the small-tank toilet system; and
4 (c) a bacteria and a surfactant combined with the flushing fluid.

1 22. The apparatus of claim 21 wherein the bacteria is a selected from the group consisting
2 of *Bacillus licheniformis*, *Pseudomonas fluorescens*, *Alcaligenes latus*, *Bacillus subtilis*, and
3 *Pseudomonas putida*.

1 23. The apparatus of claim 21 wherein the bacteria is combined with the surfactant in a
2 weight ratio from about 10% to about 30% by weight.

1 24. The apparatus of claim 22 wherein the bacteria is combined with the surfactant in a
2 weight ratio from about 10% to about 30%.

1 25. The apparatus of claim 21 further comprising a coloring agent combined with the
2 bacteria, the surfactant, and the flushing fluid.

1 26. The apparatus of claim 21 further comprising an deodorizer combined with the
2 bacteria, the surfactant, and the flushing fluid.

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27. The apparatus of claim 21 further comprising:

- (a) a filler and, a food source, combined with the bacteria and the surfactant, wherein
- (i) the filler is calcium carbonate and is combined with the food source, the methyl salicylate, the bacteria, and the surfactant by at least about 50% by weight;
 - (ii) the food source is dried brewers yeast and is combined with the filler, the methyl salicylate, the bacteria, and the surfactant in a range from about 0.1% to about 5% by weight; and
 - (iii) the bacteria and the surfactant with the filler and, the food source, in a range from about 5% to about 50% by weight.

28. The apparatus of claim 21 further comprising:

- (a) water, alcohol, and monoethanolamine, combined with the bacteria and the surfactant, wherein
- (i) water is combined with the alcohol, the monoethanolamine, the bacteria, and the surfactant, by at least about 50% by weight;
 - (ii) the alcohol is combined with the monoethanolamine, the bacteria, and the surfactant in the range from about 1.5% to about 60% by weight of the alcohol, the monoethanolamine, bacteria, and surfactant;
 - (iii) the monoethanolamine is combined with the alcohol, the bacteria, and the surfactant in the range from about 1.5% to about 60% by weight of the alcohol, the monoethanolamine, bacteria, and surfactant; and
 - (iv) the bacteria and the surfactant are combined with the alcohol and monoethanolamine in the range from about 20% to about 97% by weight of the alcohol, the monoethanolamine, bacteria, and surfactant.

1 29. The apparatus of claim 21 further comprising an airplane on which the small-tank
2 toilet system is installed.

1 30. The apparatus of claim 21 further comprising a bus on which the small-tank toilet
2 system is installed.

1 31. The apparatus of claim 21 further comprising a camper on which the small-tank toilet
2 system is installed.

1 32. The apparatus of claim 21 further comprising a train on which the small-tank toilet
2 system is installed.

1 33. The apparatus of claim 21 further comprising a boat on which the small-tank toilet
2 system is installed.

1 34. The apparatus of claim 21 further comprising a free-standing portable toilet on which
2 the small-tank toilet system is installed.

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